WHAT IS CLAIMED IS:

1. A method for high speed rerouting in a multi protocol label switching (MPLS) network, the method comprising the steps of controlling a traffic stream to flow in a reverse direction in a point where a node or link failure occurs by using a backup Label Switched Path (LSP) comprising an Explicitly Routed (ER) LSP having a reverse tree of a protected multi point to point LSP and an ingress LSR through an egress LSR.

2. A method for high speed rerouting in a multi protocol label switching (MPLS) network, comprising the steps of:

setting a backup Label Switched Path (LSP) comprising a point to multi point reverse anycast tree reaching an ingress Label Switching Router (LSR) with an egress LSR of a multi point to point LSP performing as a root; and

transferring, at a LSR sensed a failure, a traffic stream through the reverse anycast tree by loop-backing the traffic stream in a reverse direction, when the failure occurs in one link in the MPLS network.

3. The method of claim 2, the traffic stream transferring step comprising the step of transferring a loop-backed packet based on a priority predetermined in each link, when the loop-backed packet reaches to a merging LSR of an upstream having a plurality of links.

4. The method of claim 2, the traffic stream transferring step comprising the steps of:

generating, at the LSR sensed the multi failure, a fault indication signal (FIS) message representing that a transfer route does not exist and transferring the message to a LSR of a downstream when the multi failures are occurred in a plurality of links comprising in the MPLS network;

transferring, at the LSR of the downstream, the loop-backed traffic to the reverse anycast tree not suffering the multi failures based on the FIS message.